

Freshwater Seahorses

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There are a few Fortean mysteries involving marine creatures that show up in freshwater that will occasionally create newspaper headlines or get passed around on social media. Sharks in rivers or lakes are particularly popular, as are alleged cases of freshwater octopuses. Bull sharks, of course, are well-known for taking advantage of brackish or freshwater systems, at least temporarily; “freshwater octopuses” usually turn out to be pranks.

It was a little surprising to come across mention of possible freshwater seahorses. Certainly, some pipefish are known to inhabit brackish and coastal freshwater in Africa (*Microphis* species, *Enneacampus* species), Asia (*Ichthyocampus carce*, *Doryichthys martensii*), Australia (*Hippichthys heptagonus*), and along the Atlantic coast of North and South America (*Microphis brachyurus*, *Syngnathus scovelli*). True seahorses (genus *Hippocampus*), however, while they may temporarily visit estuarine habitats, including low salinity waters, are not known to reside there permanently. There are two different cases where freshwater seahorses have been suggested, though, and it would certainly be fascinating to discover one.

THE ASIAN FRESHWATER SEAHORSE

In 1979, Dr. George Sprague Myers (1905-1985), ichthyologist and aquarist probably best known for describing the neon tetra, wrote of his long-standing interest in the question of freshwater sea horses. He first learned of such stories when, in 1953, legendary tropical aquarium fish collector A. Rabaut called him to ask, if a dozen or so freshwater sea horses could be collected, who might fund such an expedition?

(A brief detour: Rabaut was the explorer who actually first discovered the neon tetra. Rabaut had been collecting fish in South America,

when “in the depths of the jungle, a native told him of a fish with lights. He followed his instinct and discovered the neon tetra, which he brought to Germany” (Tippit 2009). So, technically, the neon tetra deserves a spot on cryptozoological discovery lists. It was also this event which led Rabaut to become highly secretive about his discoveries, as other collectors quickly found a way to export neon tetras to the aquarium trade for more profit than Rabaut was able to make.)

He went on to say that while collecting (at an undisclosed location) in a large shallow water area, “nowhere near saltwater,” he started to dipnet for insect larvae to feed his catch, and was amazed to find that he had caught a bunch of baby sea horses. He sought adults, but had no luck before he had to leave. Myers couldn’t offer any suggestions for wealthy backers, so Rabaut thanked him and rang off. Myers knew Rabaut had most recently been collecting in Southeast Asia, and suspected that he might have been somewhere in the basin of the Mekong River. In 1977, Myers came across a 1916 paper in the *Bulletin of the Museum of Natural History in Paris*, in which Dr. Louis Roule described a sea horse from the Mekong River (*Hippocampus arnei*; due to a typographical error, this was originally *H. aimei*, but Roule posted a revision shortly after). Two specimens (supposedly male and female) were deposited in the Paris Museum, collected in 1910 by Dr. Pierre



Fig. 1. — Femelle.



Fig. 2. — Mâle.

Roule’s *Hippocampus arnei*, now referred to two prior species.

Arné at the Laos/Thailand border. Myers noted that the specimens should undergo evaluation to make sure that they were in fact distinct, as the sea horses of Asia can be quite variable and confusing. The presence of babies might not indicate a freshwater endemic, as some saltwater pipefish, for example, will enter freshwater rivers.

Later research did show that, in fact, Roule's *Hippocampus arnei* pair were actually female seahorses of two separate marine species. One was *H. barbouri* and the other was *H. spinosissimus*. *H. barbouri* appears to be found mostly in Indonesian waters, so that is unusual, but the hedgehog seahorse (*H. spinosissimus*) is well-known throughout a wide range from Asia to Australia. (Bleher (2016) discovered that Roule's specimens had holes in them, indicating where they had been nailed to a fisherman's hut. So, it's more than possible that they may have been traded from another region rather than sourced in the area Arné claimed he collected them.)

It seems probable that Rabaut's baby seahorses were from a marine species that may have had babies in lower salinity waters, but as Rabaut never disclosed the exact location of his sighting, we have no way to investigate further.

THE LAKE TITICACA SEAHORSE

Lake Titicaca is situated in the Andes, on the border of Bolivia and Peru, and is the largest true lake in South America. It is only slightly brackish, and is home to a number of endemic species (some rather threatened), including the large Lake Titicaca frog, *Orestias* killifish, and *Trichomycterus* catfish. The best-known report of a seahorse here is found in engineer and amateur archaeologist Arthur Posnansky's *Tihuanacu*. It's a brief mention, part of a section arguing that Lake Titicaca was the remnant of marine waters that were landlocked when the Andes rose:

"That Lake Titicaca is what remains of a great suspended body of ocean water, is evinced by the fact that the fauna of the lake—today completely degenerated—is very similar to that which exists in the sea. Several years ago, when the author was engaged in studies and excavations on the islands of the lake, he went on a fishing party organized by the Indians and saw taken from the nets a *Hippocampus* which was degenerated both in form and size." A footnote states: "The Indians believe that this animal is a sort of divinity, like everything that is

strange and inexplicable to them. The author asked them if such finds were frequent, to which they replied that, on the contrary, they were very rare. Furthermore, they added that, whenever such a discovery was made there followed a bad fishing year. . . . Those who made up the party and the residents of Coati Island made an official record of this rare find. At the present time this animal is located in the Museum of Natural History of Berlin: Zoological Section, Posnansky Collection, Series III, No. 1.”

A photograph of the seahorse accompanied this; it appears to have originally been published in a 1911 text by Posnansky, and given the name *Hippocampus titicacensis*. (I’ve not seen that text, but a 1914



*b. Hippocampus
Titicacensis.*

text by Posnansky does provide that name underneath the photo.) In their global revision of *Hippocampus*, Lourie et al (2016) referred to this species as *Hippocampus titicacaensis* (sic?), and denote it a ‘*nomen nudum*’, or a species name that lacks a published description, and is therefore unavailable and shouldn’t be used unless and until a taxonomist republishes the name with a valid description.

It is unfortunate that, for many authors who mention this alleged creature, the validity of the Lake Titicaca seahorse seems to be dependent on which geological model they support (Gregory 1913; Moon 1939). For example, Koepcke (1959) noted that one author rejected the existence of seahorses in Lake Titicaca because he couldn’t reconcile it with his belief in a glacial origin of the lake, while another author, Welter, thought it was strong evidence for his own theory of the marine origin of the lake. (Welter even claimed to have seen at least twenty seahorses himself, among the rushes near a pier in August 1920. I’ve not located a copy of Welter’s 1947 paper that mentions this, but while Garner (1964), again due to his geological preferences, suggests Welter was referring to dried specimens in a market, the context strongly suggests otherwise. Garner does add a few details, such as the sighting occurred about 1920 in the wharf area around the Bolivian village Guaqui.) Koepcke noted that no other zoological collections from the lake had gathered evidence of seahorses, and suggested that perhaps a dried seahorse from the coast had been given to Posnansky, as one market on the Peruvian side of the lake regularly sold marine seashells. Koepcke appears not to have realized that Posnansky claimed to have seen the seahorse removed, living, from the water.

One archaeological discovery in the Lake Titicaca region was a ceramic which, though the head and tail are broken off and missing, clearly represents a seahorse. It was found on Suriqui Island and is from the pre-Incan Tiwanaku culture. It is currently housed in the Museo Nacional de Arqueología Tiwanaku. Numerous images of this ceramic can be found online.

A second large piece of a seahorse effigy ceramic (believed to have been ritually broken as ceremonial pottery) was found buried on the island of Pariti by one of the locals, and is now in the Pariti Museum (Korpisaari and Pärssinen 2011).

Ruiz (2017) notes a few other sightings. Dick Ibarra Grasso, on a school excursion, found one along the shore near Copacabana that

was deposited in formaldehyde with the San Calixto school museum. Unfortunately, that specimen disappeared when the school museum was transferred to new facilities. Mario Montaña Aragón, in his *Diccionario De Mitología Aymara* (1999; La Paz: CIMA), is said to mention his own account of seeing native fisherman remove a seahorse from their nets and immediately return it to the water as sacred, but I have not seen a copy of this text to confirm that.

The native people of Lake Titicaca are the Aymara and the Uru, though only the Aymara language is spoken today. Conde (2018) notes that Bolivian archaeologist Oswaldo Rivera apparently also saw fishermen return a seahorse back to the lake, and that they referred to it as *Challwatayka*, or ‘mother of fishes.’ No source is given for this story, and it sounds very close to the Aragón story, so it may be apocryphal—further investigation is warranted.

As Bleher (2016) notes, along with the ceramic seahorse piece in the Tiwanaku museum is a dried seahorse specimen with the label, ‘*Hipocampus titcanensis*’ (sic). It’s easy to see from his photograph that this is not the same specimen that Posnansky collected (though Bleher assumes it is), but it’s less certain whether this specimen actually came from Lake Titicaca. If so (perhaps the museum has collection data to confirm), then it might be a second specimen of an as-yet-undescribed species. Bleher mentions also that he met an elderly man on one of the lake’s islands who claimed to have seen the seahorse long ago, somewhere on the Peruvian side of the lake.

It’s interesting to note that in various articles about this seahorse, there’s a running thread of possible threats to the species’ survival: introduced trout and salmon, pollution, lowered salinity. This is why it is so important to actually follow through and locate these significant unknown species, no matter how small. It’s too easy to lose a species if we don’t know it exists.

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